UMM Journal of Accounting and Financial Management (UMMJAFM) journals@umm.edu.ng

ENVIRONMENTAL DISCLOSURE AND PERFORMANCE OF NON-FINANCIAL COMPANIES IN NIGERIA: THE MODERATING EFFECT OF BOARD SUSTAINABILITY COMMITTEE

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Abstract
The study examined the moderating effect of board sustainability committee on the relationship between environmental disclosure and performance of non-financial companies listed on the Nigerian exchange Group. The explanatory variable used was environmental disclosure. The moderating and control variables were board sustainability committee and firm size respectively. The dependent variable was firm performance proxied by return on assets, return on equity and Tobin's Q. Data were obtained from a sample of thirty (30) non-financial firms out of a population of 72 non-financial firms listed on the Nigeria Exchange Group as at December, 2024. The multiple regression method of data analysis was employed to analyze the data for the period 2015- 2024. It was found that environmental disclosure had significant effect on all the performance proxies. It was further found that the moderating effect of board sustainability committee with environmental disclosure had significant effect on all the proxies of performance. The study concluded that the moderating effect of board sustainability disclosure with environmental disclosure had significant effect on the performance of non-financial companies listed on the Nigerian Exchange Group. It was therefore, recommended that non-financial companies in Nigeria should continue to disclose environmental issues in the manner that has affected positive performance.

Keywords: Environmental disclosure, board sustainability committee, firm performance

Introduction

In recent years, environmental disclosure has attracted the attention of business people around the globe due to the increasing demand for information by stakeholders. This is because the use of environmental resources has impacted on the society and there is the need for information on the use of the resources and the sustainability of the resources. Accordingly, there has been increased interest in the presentation and inclusion of environmental information in annual reports of many companies in line with the signaling theory to avert the information asymmetry where stakeholders order than the management were uninformed about the activities of the companies (Constantinescu et al., 2021). It is expected that the disclosure of the information will create reputational advantages and attract investors to the company to improve performance.

As crucial and critical as environmental disclosure is to firm performance, most companies in Nigeria have continue to under-perform largely due to non-disclosure of their environmental activities (Charumathi & Ramech 2020). A scan into literature revealed that several studies have been conducted on the effect of environmental disclosure and firm performance; these includes but not limited to the studies by Widyawan & Sopian (2022), Ruhiyat & Murwaniagsari (2019), Hermawang et al,(2021), Choi et al, (2023), Yeye & Egbunke (2023), Firmansyah et al, (2023) and Triyani et al, (2020) among others all found a negative and insignificant relationship between environmental disclosures and firm performance while Rangjiang et al, (2023), Orisakwe (2023), Khanifah et al. (2023), Gerged et al. (2020), Jin et al. (2020), Delvina & Hidayah (2023), Kaushik & Chudhary (2023) and Akinlo & Iredele (2023) among others found a positive and significant relationship.

Notwithstanding the findings of the researchers above, methodological gaps were identified in literature on the subject matter, it was observed that environmental disclosure is regulated by the Board Sustainability Committee (BSC). The committee is a committee established by the board of directors with the responsibility of coordinating activities of corporate organizations in Nigeria (Nigerian Code of Corporate Governance, 2018). This imply that the effect of environmental disclosure on firm performance may be incomplete if it is examined in isolation of the board sustainability committee. Arising from this concern, this study was motivated to moderate the BSC committee with environmental disclosure to ascertain the synergized effect on the performance of non-financial companies in Nigeria and close this methodological gap. Another methodological gap identified was in the model formation, some of the studies reviewed like that of Yeye and Egbunke (2023), Firmansyah et al. (2023) formed models as if the environmental disclosure of that same year will affect performance of the same year. It would be observed that environmental disclosures are signaling issues and their effect cannot effective in the same year of the disclosure. This methodological gap was addressed by lagging the model formed by one year so that signals of disclosure will be captured in the performance of the companies in the following year. To achieve a more robust finding, the study population was based on all the non-financial firms listed on the NXG against some studies like Widyawan

& Sopian (2022), Ruhiyat & Murwaniagsari (2019) that used one sector to examine the relationship. All these gaps were closed by examining the moderating effect of board sustainability disclosure on the relationship between environmental disclosure and performance of non-financial companies listed on the Nigerian Exchange Group (NXG).

Objectives of the Study

The broad objective of the study was to examine the moderating effect of board sustainability disclosure on the relationship between environmental disclosure and performance of firms in the non-financial sector in Nigeria.

The study had the followings as specific objectives:

i. To examine the effect of environmental disclosure on performance of non-financial companies in Nigeria.

ii. To determine the moderating effect of board sustainability committee on the relationship between environmental disclosure and performance of non-financial companies in Nigeria.

Statement of Hypotheses

The following null hypotheses were employed to help in the research study.

H_{01}: Environmental disclosure has no significant effect on performance of non-financial companies in Nigeria.

H_{02}: The moderation of board sustainability committee on the relationship between environmental disclosure and performance of non-financial companies in Nigeria is of no significant effect.

Literature Review

Empirical Review

Rongjiang et al. (2023) examined the impact of environmental information disclosure on firm performance of Chinese listed companies in heavily polluting industries. The study sample comprised of 1242 A-share listed companies in the heavy pollution industry in China's Shanghai and Shenzhen markets for 10 years from 2010 to 2021. The study employed the fixed effect model for analysis based on the recommendation of Hausman specification test and the result revealed that environmental disclosure has a significant positive effect on firm performance. The reviewed study covered only environmental aspect of disclosure and was conducted in China; thus, the findings cannot suitably be applied in the Nigerian context since both countries does not share the same historical antecedent.

Oke et al. (2023) examined the effect of environmental disclosure on firm performance with financial performance (FP) as an intervening variable. The study was conducted on companies involved in Indonesia Sustainability Reporting Award (ISRA). The study sample 15 companies that participated in ISRA for a period of 4 years from 2013 to 2016. The study measured environmental and social disclosure using GRI 4.0 guidelines covering 34 items and 48 items respectively. Firm performance was measured using Tobins Q. The study employed the structural equation model with Partial Least Square Path Modeling and the result indicated that environmental and social disclosure has a positive and insignificant effect on firm value. The result also showed that environmental and social disclosure ha a significant positive effect on financial performance. The study also found that financial performance mediates the effect of environmental and social disclosure on firm performance. The reviewed study was conducted in Indonesia; thus, the findings cannot suitably be applied in the Nigerian context since both countries do not share the same historical antecedent.

Orisakwe (2023) examined the effect of voluntary environmental disclosure on firm performance of quoted financial services companies in Nigeria. The study adopted the longitudinal research design and positivism as the research philosophy with a total population of 52 financial services companies quoted on the Nigerian Exchange Group (NGX) as at 1st January 2021. The study used the filtering sampling technique to derive a sample size of 37 financial services companies which had complete data for analysis. Secondary data were obtained from the audited financial statements of the sampled companies covering a 10 years period from 2012-2021. This study used Tobin's Q as the measure for firm performance, while environmental disclosure index was used to proxy voluntary environmental disclosure. Panel multiple regression technique was employed for analysis and the result found that voluntary environmental disclosure has a positive and significant effect on firm value. The reviewed study covered only environmental aspect of disclosure thereby, neglecting social and governance disclosure which according to extant literature affect firm performance.

Ogebe (2023) examined the effect of corporate environmental disclosure index on firm performance and market value of selected sectoral industries in Nigeria. The study adopted multi-stage sampling approach in selecting the sample size. The study's population comprised of three key industries: oil and gas, consumer goods, and banking. The study sample comprised of 12 oil and gas firms, 15 consumer goods companies, and 14 listed Deposit Money Banks. Data for the study was collected for 5 years from 2015 to 2020. The study employed the GMM system method for analysis and the result suggested that corporate social responsibility disclosure has a positive and non-significant positive effect on firm value proxied by Tobins Q.

Kantudu et al. (2023) examined the effect of corporate social disclosure on firm performance of listed oil and gas companies in Nigeria and the moderating role of foreign ownership on the relationship. The study adopted an explanatory research design and secondary data was collected from annual reports and accounts of the sampled companies for 4 years from 2018 to 2021. The sample size comprised of 10 oil and gas companies in Nigeria. The study employed multiple regression using panel-corrected standard error (PCSE) to analyze the data. Findings indicated that corporate social responsibility disclosure has a positive and significant impact on firm performance. The results also revealed that foreign ownership has a positive but insignificant effect on firm performance. The result also indicated that foreign ownership positively moderates the relationship between corporate social responsibility disclosure and the value of listed oil and gas companies in Nigeria. The reviewed study covered only social aspect of disclosure thereby, neglecting social and governance disclosure which according to extant literature affect firm performance.

Okwolli (2023) examined the effect of corporate social responsibility disclosure on firm value and financial performance of Egyptian companies. The study was conducted on 33 companies that were listed in the EGX30 in the year 2001 in Egypt for a period of 8 years from 2007 to 2014. CSR is measured by a CSR index from Egyptian Corporate Responsibility Index S&P/EGX Index, while firm value was measured by Market to Book Value Ratio and financial performance by return on assets (ROA) and return on equity (ROE). The study employed multiple regression analysis and the findings revealed that corporate social responsibility disclosure has an insignificant negative effect on firm value and a significant positive effect on firm' financial performance measured by ROA and ROE.

Hermawan *et al* (2023) examined the effect of corporate social responsibility disclosure on firm performance with Profitability as a

Moderating Variable. The study was conducted on Indonesian and Malaysian pharmaceutical companies listed on the Indonesia and Malaysia Stock Exchanges respectively for a period of 4 years from 2016-2020 period. The study adopted purposive sampling method and 8 Indonesian pharmaceutical companies were selected from a population of 10 companies, while, 8 Malaysian pharmaceutical companies were selected from a population of 16 companies. The study used the Partial Least Squares (PLS) analysis (PLS-SEM) with the aid of SmartPLS version 3.0. The result revealed that corporate social responsibility disclosure has a significant positive effect on firm value of Indonesian pharmaceutical companies. The result also found that corporate social responsibility disclosure has a non-significant positive effect on firm performance of Malaysian pharmaceutical companies. The reviewed study covered only environmental aspect of disclosure and was conducted in Malaysia; thus, the findings cannot suitably be applied in the Nigerian context since both countries does not share the same historical antecedent.

Oladeji and Olokayo (2023) examined the effect of social costs disclosure on firm performance and the role of corporate governance in moderating these effects. The study sample comprised of 29 companies from the mining industry listed on the Indonesian Stock Exchange (IDX) and selected using the purposive sampling method for a period of 4 years from 2017-2020. The study proxied corporate environmental disclosure with independent commissioners and number of audit committee members, while firm performance was proxied by Tobins Q. The study employed the fixed effect model based on the recommendation of the Hausman specification test. The results show that while environmental costs have a positive effect on firm value, environmental disclosure has a negative effect on firm performance. The result also showed that corporate governance proxied by the proportion of independent commissioners does not moderate the effect of environmental costs and environmental disclosure on firm performance. Also, corporate governance proxied by the number of audit committee members does not moderate the effect of environmental costs on firm performance. The reviewed study covered only environmental aspect of disclosure and was conducted in Indonesia; thus, the findings cannot suitably be applied in the Nigerian context since both countries does not share the same historical antecedent.

Olorunnisola and Usman (2023) examined the effect of corporate social responsibility disclosure index on firm performance and market value of selected sectoral industries in Nigeria. The study adopted multi-stage sampling approach in selecting the sample size. The study's population comprised of three key industries: oil and gas, consumer goods, and banking. The study sample comprised of 12 oil and gas firms, 15 consumer goods companies, and 14 listed Deposit Money Banks. Data for the study was collected for 5 years from 2015 to 2020. The study employed the GMM system method for analysis and the result suggested that corporate social responsibility disclosure has a positive and non-significant positive effect on firm value proxied by Tobins Q.

Olaniyan and Oke (2023) investigated the effect of corporate governance responsibility disclosure on firm performance, considering both firm profitability and firm value in an emerging market, India. The study sample comprised of 386 companies which were classified as major players in the capital market listed on the BSE 500 index in India. Data for the study were collected for 10 years from 2007 to 2016 which were sourced from annual reports of the sampled companies. The study measured corporate governance responsibility using content analysis of social disclosure themes on GRI, while firm value and profitability were proxied by Tobins Q and return on assets. The study employed multiple regression analysis and the result revealed that corporate social responsibility has a significant negative effect on firm value and profitability.

Methodology

Research Design

An ex-post facto type of descriptive research design was adopted. This was because the ex-post facto research design attempts to explore factors that affect relationship where the data for the factors already exists. Ex-post facto research design involves ascertaining the effect of past factors on the present happenings or event.

Method of Data Collection

Secondary sources of data were employed for this study, data were extracted from the annual reports of the sampled firms for ten years (2015-2024). The data for the independent and dependent variables were obtained from the MachameRatios LTD while the moderating variable (board sustainability committee) was obtained from the Financial Reporting Council of Nigeria bulletin (2024). The choice of ten years was used to cover enough signals from environmental disclosure that can affect the performance of the companies. Environmental disclosures are signals that may not affect performance immediately therefore it is imperative to choose a reasonable period to ensure that the signals have captured the performance of the companies.

Variables Specification/ Model Specification

The research study focused on four types of variables; the dependent variable, independent variable, moderating variable, and the control variables.

The dependent variable

The dependent variable in this study is firm performance. For the purpose of this study three measures were employed namely return on assets (ROA), return on equity (ROE) and Tobin's Q. The choices of these dependent variables are predicated on the intention of the research to test the effect of environment disclosure on performance from the perspectives of management, shareholders value and market performance respectively.

The independent variable

The independent variable for this study is environmental disclosure. This variable is chosen because it is a prominent variable that proxy the independent variable in the study.

Moderating variable

The moderating variable used in this study is the board sustainability committee. It was proxied by the ratio of the board sustainability committee members to the total size of the board. (Adedoyin, 2011). Board sustainability committee was chosen as a moderating variable because it is a committee that regulates the environmental disclosure of corporate organization. The committee also advices the board on best practices regarding environmental disclosure in Nigeria therefore, the success of environmental disclosure cannot be achieved in isolation of the committee.

Control Variable: A control variable was used to minimize specification bias. The variables used was company size which was measured by total assets. (Lawal *et al*, 2016). The logarithm of the values was used because the original large value of the total assets may disturb the analysis.

Model Specification

The model of the study is a multiple regression model adopted from Barron and Kenney (1986) the model is as stated below:

$$ROA_{it} = \beta o + \beta_1 ED_{it-1} + \beta_2 SIZ_{it-1} + \beta_3 BSC*ED_{it-1} + E_{it} \ldots\ldots(1)$$

$$ROE_{it} = \beta o + \beta_1 ED_{it-1} + \beta_2 SIZ_{it-1} + \beta_3 BSC*ED_{it-1} + E_{it} \ldots\ldots(2)$$

$$TQ_{it} = \beta o + \beta_1 ED_{it-1} + \beta_4 SIZ_{it-1} + \beta_3 BSC*ED_{it-1} + E_{it} \ldots\ldots(3)$$

where:
ROA_{it} = represents return on the assets for firm i at time t.
ROE_{it}= represent return on equity of firm i for time t.

TQ_{it}= Tobin Q value of firm i for time t.

ED_{it}= Environmental disclosure for firm i at time t.

BSC_{it}= Board sustainability committee for firm i at time t.

$GROW_{it}$= Firm growth for firm i at time t.

SIZ_{it}= Company size for firm i at time t..

E_{it} = is error term for firm i at time t.

βo = the regression constant

$\beta_1, \beta_2, \beta_3,$ = coefficients for the independent variables;

Data Analysis Techniques

The multiple equation regression technique was used as the major technique of data analysis. The multivariate multiple regression was used because the technique facilitates a simultaneous empirical estimation of the relationship between several dependent variables on some set of explanatory variables. This enables the comparison of the effect of the predictor variables on different outcomes. The merit of using multiple regression models is that the technique explains the effects of several explanatory variables on a dependent variable.

Test of hypotheses

The hypotheses developed was tested at 0.05 alpha level of significance. Respective calculated probability coefficients that are greater than this ‘bench mark’ lead to the non- rejection of the null hypothesis, while a value less than the threshold, lead to the rejection of the null hypothesis and subsequent acceptance of the alternate hypothesis.

Results and Discussions

As explained in section three, the study targeted 30 non-financial listed companies for the period 2014 to 2023. The result of the study is discussed in terms of descriptive statistics which comprises the mean the standard deviation, and the maximum and minimum. The discussion further includes the results from the regression analysis and the diagnostic test from the data.

Descriptive statistics

Table 1 presents the descriptive statistics of the dependent and independent variables. The statistics reported in the table are, the mean, standard deviation, minimum and maximum values of the data for the variables used in the study.

Table 1 Summary of Descriptive Statistics

Variables	Mean	Sd	Max	Min
ROA	1.343	0.210	4.531	0.569
ROE	2.595	1.791	5.1407	0.122
TQ	2.605	1.782	6.140	0.469
ED	0.858	0.108	1.000	0.620
BSC	0.802	0.076	0.820	0.660
SIZ	7.461	0.728	8.577	5.623

Source: STATA 15

Results in table 1 indicates that, return on assets (ROA) ranges from a minimum of 0.569 to maximum of 4.531, Return on equity (ROE) ranges from minimum of 0.122 to 5.140, Tobins Q (TQ) ranges from 0.4692 to 6.140, environmental disclosure (ED) ranges from 0.62 to 1.000, Specifically, the mean values of the independent variables above show that, the disclosure of environmental disclosure was high amongst the companies. The statistics also indicates that the mean of the performance variables was all positive implying that changes in the independent variables had positive changes in the dependent variables. This will however be confirmed in the regression analysis.

Diagnostic tests

Regression is a parametric test and as a result it is restrictive in nature. It fails to deliver good results with data sets that do not fulfill its assumptions. It is therefore critical to first validate these basic regression assumptions for a successful regression analysis.

Normality test

One of the basic assumptions of a parametric test is that data must be normally distributed. In statistics, the normality test is used in order to determine whether a given set of data is well-defined by a normal distribution. If the error terms are non- normally distributed, confidence intervals may become too wide or narrow. Once confidence intervals become unstable, it leads to difficulty in estimating coefficients based on minimization of least squares (AA).

The result obtained from Shapiro Wix W test of Normality indicated that ED were having P-values of 0.367 meaning that they were normally distributed whereas the other variables remained non-normally distributed this was corrected by taking logarithm of the data set to base 10 to put all the variables on the same base and avoid normality problems.

Table 2: Shapiro Wix Man test of Normality

Variable	OBS	W	V	Z	Prob.
ED	300	0.994	1.156	0.340	0.367
SIZ	300	0.945	11.610	5.755	0.000
TQ	300	0.862	29.339	7.932	0.000
ROA	300	0.863	29.044	7.908	0.000
ROE	300	0.834	14.232	6.038	0,000

Source: STATA 15

Multicollinearity

An important assumption of multiple regressions is that independent variables are not perfectly multicollinear. When collinearity exists, it becomes difficult to determine with certainty which of the variables is actually contributing to predict the response variable. Another problem with collinearity is that the error terms tend to increase. With large standard errors, the confidence interval becomes widens leading to less precise estimates. The presence of multicollinearity amongst predictors ends up with incorrect conclusions that a variable either strongly or weakly affects target outcome.

Multicollinearity test was done using variance inflation factor (VIF) and tolerance value. The result in Table 3 shows that all the VIF values for all independent variables were consistently below the benchmark of ‘10’ which is considered not harmful for regression. This is supported by a mean VIF of 1.01 which is above the benchmark of ‘1’ considered suitable for regression analysis. This is an indication of the absence of the problem of multicollinearity

Table 3 Multicollinearity test

Variables	VIF	1/VIF
SIZ	1.30	0.9312
BSC	**1.01**	0.966676
MEAN VIF 2.508		

Source: STATA 15

Correlation

Correlation coefficient measures the direction and degree of association between two or more variables. Correlation measures association not causality. This means that correlation cannot be used to test for cause-effect relationship. Correlation can be positive (>0) or negative (<0). A positive correlation means two variables moves in the same direction while a negative correlation means they move in opposite direction. Pearson Correlation Test is best used to test for the direction and strength of association among a set of variables that are normally distributed (Olukoya, 2023).

Table 4 presents correlation values between dependent and independent variables and the correlation among the independent variables themselves. These values are generated from Woodrige- F statistic correlation output. It is observed that the highest correlation among the independent variables is ED which is -0.281. The relationship between the independent variables is not greater than 0.7 to pose the problem of singularity. The value is clearly below the bench mark or 70%. This is also an indication that, the correlation of the independent and the dependent variables and among the dependent variables in this study is good.

Table 4 Correlation among the dependent variables

	ED	BSC	SIZ
ED	1.000		
BSC	-0.089	1.000	
SIZ	-0.010	-0.031	1.000

Source: STATA 15

Heteroskedasticity Test:

Heteroskedasticity means the absence of homoskedasticity, the constant variance assumption of the Ordinary Least Square estimator. It implies the absence of non-constant variance leading to the breakdown of the properties in which the efficiency and consistency property are lost.

The table below shows the result obtained from the test for heteroskedasticity where all the variables had homoscedasticity as seen from the P-values of 0.2093 for TQ, 0.1454 for ROA and 0.0629 for ROE. The table is shown below.

Table 5 Heteroskedasticity Test:

	TQ	ROA	ROE
Chi^2	6.76	3.20	3.01
Prob.	0.2093	0.1454	0.0629

Source: STATA 15

Regression Results

Multiple regression was used for the analysis of data in this study because the technique analyses the effect of two or more independent variables on the dependent variable. The multiple equation's model technique known as the multivariate regression was used for the analysis of data in this study because the study contained multiple regression equations. Table 8 presents the results.

Table 6 Summary of regression results

Variable		Coef.	t-	Prob.
TQ		R-sq= 0.0751	-	0.0018
ROA		R-sq= 0.0762	-	0.0015
ROE		R-sq= 0.0732	-	0.0022
TQ				
	ED	-26.87	-3.69	0.000
	EDBSC	32.07	3.58	0.000
	SIZ	0.19	1.38	0.167
ROA				
	ED	-26.92	-3.70	0.000
	EDBSC	32.02	3.58	0.000
	SIZ	0.19	1.38	0.169
ROE				
	ED	-26.50	-3.62	0.000
	EDBSC	31.65	3.52	0.001
	SIZ	0.18	1.33	0.185

Source: STATA 15

The summary of regression result in table 8 shows the probability of fitness of the models as 0.0018 for TQ, 0.0015 for ROA and 0.0022 for ROE. The implication of the result was that the error margin of the models was less than 5% meaning that the confidence level of the models was greater than 95% thus, the model was fit for interpretation. The R Square value of 0.0751, 0.0762 and 0.073 for TQ, ROA and ROE indicates that on the average about 7.48% changes in the performance of the non-financial companies is as a result of the changes in the environmental disclosure of the companies.

From the model, the coefficient of environmental disclosure (ED) is -26.871. The coefficients represent the extent to which changes in the environmental disclosure can change the market value (TQ) of the companies. This means that a unit change in this independent variable will change TQ by the corresponding coefficient indicated. Similarly, the coefficient of ED with respect to ROA was -26.925 which was an indication that a unit change in environmental disclosure variable will change ROA by the respective coefficient. The result further indicated that a unit change in ED will change ROE by -26.508. The analysis further indicates that ED consistently had significant effect on all the performance variables, the significance continued even when it was moderated with board sustainability committee.

It was also observed that ED significantly affected TQ, ROA and ROE but the effect was negative however, when it was moderated with board sustainability committee, the effect became positive with a higher coefficient of prediction of the dependent variables.

Test of hypotheses

Hypothesis 1: Environmental disclosure (ED) has no significant effect on performance of non-financial companies in Nigeria. This hypothesis was tested bases on the value of the student T test computed and the critical value of ±1.96. The decision rule was to accept the null hypothesis if the calculated T-value falls within the region of non-rejection of the null hypothesis of ±1.96 otherwise to reject the null hypothesis. The calculated T value for hypothesis 1 was -3.69 for TQ, -3.70 for ROA and -3.62 for ROE; based on the calculated t-value, all the values fell outside the region of non-rejection of the null hypothesis therefore, the null hypothesis was rejected and the alternative hypothesis accepted that ED has significant effect on the performance of the non-financial firms in Nigeria.

Hypothesis 2: The moderating effect of board sustainability committee on the relationship between ED and the performance of non-financial companies in Nigeria is of no significant effect. This hypothesis was tasted based on the value of the student T test computed and the critical value of ±1.96. The decision rule was to accept the null hypothesis if the calculated T-value was found within the region of non-rejection of the null hypothesis of ±1.96 otherwise to reject the null hypothesis. The calculated T value for the moderating effect of BSC and ED on TQ was 3.58 for EDBSC, -1.99. The implication was to reject the null hypotheses for the moderation of EDBSC and market value. In addition, the null hypotheses were rejected for EDBSC and their relationship with ROA. On the average, the null hypothesis for hypothesis 2 was accepted that the moderating effect of BSC on the relationship between ED and firm performance is not significant.

Discussion of Findings

The discussion of findings in this study is based on the analysis of the data in table 8 above. The analysis was done in line with each hypothesis of the study.

Environmental disclosure and firm performance

Hypothesis 1 has predicted that environmental disclosure (ED) does not have any significant effect on firm performance. The regression results in tables 8 show that, ED has significant effect on performance measured by TQ, ROA and ROE meaning that the disclosure of ED by non- financial firms affected TQ, ROA and ROE. The reasons for this significant effect could be due to the issues of reputation and brand image. Being transparent about a company's environmental footprint can change its reputation and brand image; by demonstrating a commitment to sustainability and environmental responsibility the performance of the firm can change. The significance of the results may also be a function of trying to comply with regulatory requirements. Companies may be required by law or industry standards to disclose information about their environmental footprint, such as emissions data and energy use. Noncompliance in most cases lead to sanctions and other legal consequences that can negatively affect performance. Since firms for the period under study that do not have total compliance with environmental disclosures may face sanctions that will negatively affect performance. Another reason for the significance of the result could be that ability of the companies to manage expected risk. This is because transparency in environmental disclosures can help companies identify and manage risks related to environmental issues, such as climate change and resource depletion. When these risks are not timely identified and dealt with, they can lead to disruptions in productive and other activities that have capacity to affect overall performance of the firm. In addition, cost savings could be another reason for the significance in the relationship between ED and firm performance. Companies that are transparent about their environmental activities and disclosure may be able to identify opportunities for cost savings, such as reducing energy consumption or waste. Environmental disclosure can encourage businesses to innovate and develop new solutions that reduce their environmental impact. This can lead to the development of new technologies, processes, and products that are more sustainable and efficient to reduce negative environmental impact and change performance.

The finding of this study is not in isolation but consistent with the findings of Rangjiang et al, (2023), Orisakwe (2023), Khanifah et al, (2023), who in their studies found that, environmental disclosure had significant effect on firm performance. However, the result contradicted the findings of Widyawan & Sopian (2022), Ruhiyat & Murwaniagsari (2019), Hermawang et al, Fahad & Busru (2021), who both found out that, environmental disclosure had insignificant effect on firm performance. This result is supported by the stakeholder's theory, which posit that all the stakeholders of the company should be considered in the operations of a corporate organization. Therefore, the environment as an integral part of the society where most of the resourced of the company are drawn must be given the required attention for sustainable performance of the companies.

Moderating BSC with ESG on firm performance

Proportionate to hypothesis 2 that predicted abinitio that board sustainability committee (BSC) has no mediating effect on the relationship between environmental and firm performance. The results of the regression confirm that on the average, board sustainability committee has no mediating effect on the relationship between environmental disclosure and firm performance. This means that at all instances, the mediation made tremendous changes in the relationship between ED and firm performance.

This finding is consistent with the signaling theory which states that ED are strong signals that affect the capital market because environmentally friendly investors like to invest in companies that are ethical about environmental issues.

Summary, Conclusion and Recommendations

This part of the study summarized the entire work and made conclusions based on the analysis and findings drawn therefrom. The section further made some recommendations and suggestions for further research. The contribution to knowledge was also advanced in this part of the study.

Summary

The broad objective of this study was to examine the moderating effect of board sustainability committee on the relationship between environmental on the performance of non-financial firms in Nigeria. The study had the followings as the specific objectives; to examine the effect of Environmental disclosure (ED) on firm performance in the non-financial sector in Nigeria and evaluate the moderating effect of board sustainability committee on the relationship between ED and performance of non-financial companies in Nigeria. The major concepts of interest to the study was the concept of environmental disclosure and firm performance. The study reviewed several theories including the agency theory, the signaling theory, the legitimacy theory and the stakeholder's theory. The study was however, anchored on the signaling theory because ED within the study period significantly signaled the capital market with positive consequences on the market value of the firms measured using TQ. The agency theory also supported the study strongly as ED was observed to have strong prediction of the ROA which is a measurement of the performance of the agents. The other theories were however, complementary theories to the signaling theory and the agency theory.

The study employed expost facto research design with a sample of thirty firms. Diagnostic tests were performed to ensure the integrity and validity of the data used, the multi equation regression (multivariate) analysis was done and the result revealed the following findings.

Summary of Findings

It was found that within the study period if all other variables were held constant, 7.5% of the changes in market performance were as a result of the changes in ED by the non-financial firms in Nigeria. In addition, within the same period, 7.6% of the changes in ROA were as a result of the changes in ESG disclosure by the same companies. Furthermore, 7.3 percent of the changes in ROE were as a result of changes in the ED of the non-financial companies in Nigeria. The following specific findings were also made:

1. The study examined the effect of ED on the performance of non- financial firms in Nigeria.

   The study revealed that ED had significant effect on all the performance measures TQ, ROA and ROE at 5% alpha level of significance. It therefore implies that, high level of environmental disclosure by listed non-financial firms in Nigeria have significant impact on the performance of the firms.

2. The study evaluated the moderating effect of BSC on the relationship between ED and performance of non-

financial firms in Nigeria. The study found significant moderating effect of BSC and ED on TQ, ROA and ROE.

Conclusion

Based on the result of data analyzed, the following conclusions were reached:

The study concluded that environmental disclosure has significant effect on performance of non- financial companies in Nigeria. The study further concluded that, the moderation of board sustainability committee with ED had significant effect on the performance of the firms.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. Environmental disclosure has positive and significant effect on firm performance. Therefore, companies in the non-financial sectors should not renege on the disclosure of environmental issues because of its effect on performance. Owners and managers of firms should note that, investment in environmental interventions and subsequent disclosure is never a wasted effort. It safeguards the environment making it conducive for both the inhabitants and the firm. This has positive effect on firm performance in the long run as confirmed by the result.
2. The moderation of BSC with ED had significant effect on the performance of the companies therefore non-financial companies need to make the sustainability committee of the companies stronger than ever because the committee reviews enviromental issues for sustainable growth and improvement in the performance of the firm and must be considered paramount.

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